UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

SITE: Browns Dump
BREAK: 3.1
OTHER:

December 3, 2001

4WMD - SSMB

By U.S. Mail

Mr. Norman N. Hatch, Jr., P.E.
CH2M Hill
9428 Baymeadows Road
Suite 200
Jacksonville, FL 3256

SUBJ: Approval of Revised Procedures for Parcel by Parcel Sampling
August 17, 2001, Additional RI Sampling Work Plan
Brown's Dump - Jacksonville
EPA I.D. Number: FLD 980 847 016

Dear Mr. Hatch:

The Environmental Protection Agency (EPA) has completed its review of the revised Procedures for Parcel by Parcel Sampling (Enclosure 1). EPA has concluded that the revised procedures are acceptable. Hence, the enclosed revised procedures replace the original procedures found in the work plan dated August 17, 2001, and entitled "Additional RI Sampling for Brown's Dump Site."

The change in the sampling procedures decreases the decontamination of the augers from between every six inch interval to between every borehole unless the sample is to be sent to the laboratory (i.e., samples for laboratory analysis are still obtained using a decontaminated auger bucket). The amended sampling plan also decreases the minimum number of X-ray Fluorescence (XRF) lead measurements per parcel from 26 to 16. The 10 XRF measurements eliminated are from two intervals, 0 to 6 inches and 12 to 18 inches. The 0 to 6 inch interval will still be measured via XRF if ash is present. Furthermore, an XRF of a composite sample, composed of the 0 to 6 inch intervals from the five borings installed at each parcel, will be taken. A surface XRF measurement at each of the five boring locations will also be made, and the 12 to 18 inch interval will have an XRF measurement if ash is found.

In reaching its decision that the revised procedures are acceptable, EPA considered comments from the Citizens Organized for Environmental Justice (COEJ) and the Florida Department of Environmental Protection (FDEP).

Basically, COEJ asked for additional funds for technical review of documents like the proposed revised procedures. COEJ then restated their belief that the parcel by parcel sampling scheme, with its use of XRF and emphasis on lead, found in the originally approved work plan dated August 17, 2001, will not result in delineation of the contamination. Hence, in COEJ's opinion, the modifications to the proposed revised sampling procedures fail to correct an inadequate work plan. EPA disagreed that the August 17 work plan, with its use of XRF and emphasis on lead, was inadequate and approved the work plan on September 17, 2001. EPA's position on the XRF approach taken in the August 17 work plan has not changed.

COEJ also expressed concern over the new decontamination procedure and the elimination of the 10 XRF measurements. Because the samples for laboratory analysis are still obtained using a decontaminated auger bucket, the revised decontamination procedure will not harm laboratory data quality. As stated earlier, the 10 XRF measurements eliminated are from two intervals, 0 to 6 inches and 12 to 18 inches. The 0 to 6 inch interval will still be measured via XRF if ash is present. Furthermore, an XRF of a composite sample, composed of the 0 to 6 inch intervals from the five borings installed at each parcel, will be taken. A surface XRF measurement at each of the five boring locations will also be made. If ash is present at the 12 to 18 inch interval, an XRF measurement will be taken. Taken as a whole, these actions should provide suitable information from which to complete the Remedial Investigation and Remedial Action.

In their comments, FDEP questioned the appropriateness of using XRF on the 0 to 6 inch interval sample only if ash is visually identified. The original procedure had every discrete 0 to 6 inch interval measured by XRF. FDEP is also concerned that surface contamination may be missed if only the 0 to 6 inch five point composite sample is analyzed or measured with the XRF. EPA believes that the surface XRF measurements at the five boring locations will be the best indication of discrete areas of higher contamination. Moreover, each 0 to 6 inch interval sample will still be measured by XRF if ash is identified in the sample. FDEP thought data quality would not be diminished by the revised decontamination procedures or the elimination of the discrete 12 to 18 inch XRF measurements (unless ash is identified).

In summary, EPA concludes that the requested revised sampling procedures are reasonable time saving proposals to an acceptable work plan. Furthermore, the proposed revised procedures are technically valid and will maintain the collection of all necessary and relevant information needed to complete the Remedial Investigation and Remedial Action. The enclosed revisions to the parcel by parcel sampling procedures are approved and should be attached to the Additional RI Sampling Work Plan dated August 17, 2001, and used in all future parcel sampling.

If you have any questions on this approval or other aspects of the project, please feel free to call me at (404) 562 - 8938.

Sincerely,

Wesley S. Hardegree

Wesley S. Hardegree
Remedial Project Manager

Enclosure: 1. Revised Procedure for Parcel by Parcel Sampling

cc: Nellie Tunsill, COEJ (w/enclosures)
Dr. Dawud Said (w/enclosures)
Chris Pearson, City of Jacksonville (w/o enclosures)

JACKSONVILLE ASH SITE
AND BROWN'S DUMP SITE
REVISED PROCEDURE FOR PARCEL-BY-PARCEL SAMPLING

1. Take surface XRF readings at center and four corners of the parcel. If XRF lead is between 200 mg/kg and 400 mg/kg, collect surface sample for laboratory analysis of lead and arsenic.

2. Use a hand auger to collect soil samples from 0 - 6 inches below ground surface at the center and four corner locations. For each sample, make determinations of visual ash by field team leader. If ash is present, take XRF reading. No confirmation sampling for lead and arsenic on these samples.

3. Composite the five 0 - 6 -inch soil samples, determine visual ash and XRF lead (field team leader), and send to laboratory as appropriate (20% for TAL, 10% for PAH and Dioxin; confirmation analysis for lead & arsenic if XRF lead is between 200 mg/kg and 400 mg/kg).

4. All Borings: Collect samples in bags at 6 - 12 inches, 12 - 18 inches, and at 18 - 24 inches below ground surface. For the samples from 6 - 12 inches and 18 - 24 inches, examine by field team leader for visual ash and XRF lead. For the 6 - 12 inch and 18 - 24 inch samples, if the XRF reading is between 200 mg/kg and 400 mg/kg, then collect a new sample and send the sample to the laboratory for analysis of lead and arsenic (see 5 below). For the 12 - 18 inch sample, examine by the field team leader for visual ash. If ash is present, take an XRF lead measurement. No need for laboratory analysis of the 12 - 18 inch sample.

5. NOTE: Use one auger bucket per boring. Decontaminate auger buckets between borings. If a sample has an XRF lead measurement between 200 mg/kg and 400 mg/kg, use two new decontaminated auger buckets to collect a sample for the laboratory for analysis of lead and arsenic. The sample should be collected from a borehole located within 12 inches of the original borehole. A new decontaminated auger bucket should be used to auger to a depth just above where the sample is to be collected. A second decontaminated auger bucket should be used to collect the sample. The sample in the new borehole should be examined for ash by the field team leader. The XRF measurement should be taken on the sample collected in the new borehole for comparison to laboratory results and as a comparison to the original borehole XRF measurement. This procedure is being done because of the low State SCTL for arsenic to prevent the potential for false positive arsenic values.

6. Center Boring: Sample collection from the surface to 24 inches will be the same as for the four corner borings (see 4 above). Below 24 inches, continue the boring to the water table and bag samples at 1 foot intervals. If clay is encountered, auger 1 foot into the clay and discontinue. Examine all samples by field team leader for visual ash. If ash is present, take XRF lead measurement. If XRF lead is between 200 mg/kg and 400 mg/kg, collect a sample for laboratory analysis of lead and arsenic by re-augering a new borehole within 12 inches from the original borehole and

Enclosure 1
(1 of 2)

collect a new sample with a decontaminated auger bucket (see 5 above).

7. Decontamination for TAL/lead & arsenic: Eliminate the alcohol rinse step only for samples sent to the laboratory for metals analysis. The alcohol rinse step must be included for samples being sent to the laboratory for organics analysis (PAH, Dioxin, TCL).
8. TOTAL DECON: 6 auger buckets per parcel plus lead & arsenic samples
9. TOTAL XRF READINGS PER PARCEL: 3 readings per boring (surface, 1 ft, and 2 ft), 1 composite reading, plus readings for any boring with ash in the 0 - 6 inch sample and the 12 - 18 inch sample, and center boring sample below 2 ft with ash. Minimum of 16 XRF measurements per parcel.

CHANGES:

1. DECON between borings rather than between samples. This saves a lot of time and accelerates the sampling process without compromising the quality or integrity of the process. New decontaminated auger buckets will be used to collect samples for laboratory analysis.

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WORK PLAN REVISION NO. 01
BROWN'S DUMP SITE
ADDITIONAL RI SAMPLING

Prepared for

City of Jacksonville

This work has been prepared under my direct supervision.

Norman N. Hatch, Jr., PE, PMP

FL Registration Number 0000028390

Prepared by

CH2M HILL

August 2001

Work Plan Revision NO. 01
ADDITIONAL RI SAMPLING FOR BROWN'S DUMP SITE
August 17, 2001

Purpose

The City of Jacksonville conducted fieldwork and submitted an RI Report for the Brown's Dump Site in October 2000 The USEPA reviewed this document and submitted written comments in December 2000. The City responded to EPA's comments in February 2001. The City and EPA met on several occasions to discuss additional sampling needed to complete the RIs for the sites. These discussions dealt primarily with sampling needed to complete the delineation of the site. Recently, EPA requested that, in addition to firming up the site delineation, the City sample all parcels within the delineated area as part of the RI. The City prefers to perform the additional parcel-by-parcel sampling in parallel with site remediation to accelerate the initiation of remediation as rapidly as possible. However, in the spirit of cooperation, the City agrees to comply with EPA's request to perform this additional sampling as part of the RI. Accordingly, this work plan presents the scope of services needed to complete the delineation of the site and parcel-by-parcel sampling within the delineated area.

Additional Delineation RI Sampling

Parcel-by-parcel sampling will be conducted at Brown's Dump Site. If the two outer tiers of parcel-by-parcel sampling come out clean, then additional delineation will not be required since proper delineation will have been established. If the two outer tiers of parcel-by-parcel sampling do not come out clean, then additional parcel-by-parcel sampling will be conducted at these locations until proper delineation is established.

All sampling and analysis will be conducted in accordance with the approved work plan revision no. 2 for Brown's Dump Site dated March 2000.

Additional RI Parcel-by Parcel Sampling

Parcel-by-parcel sampling will be conducted within the site delineation areas. The parcel-by-parcel sampling will be conducted for those parcels not included in the areas currently identified for remediation. Particular attention will be made to collect samples along the bank of Moncrief Creek where parcel sampling intersects the creek. For large parcels, a composite sample will be collected for subareas of 200 ft. by 200 ft. In addition to the parcel-by-parcel sampling, the City will collect the following:

- Six additional Tier 2 samples in the neighborhood adjacent to the northwest site boundary.
- Three additional Tier 2 samples across Moncrief Road on Community Center property.
- One additional characterization boring in the unrestricted access area of the school. One subsurface sample from this boring will be analyzed for the full TCL/TAL parameters and dioxins/furans.

It should be noted that the City reserves the right to sample, at its discretion, parcels currently identified for remediation. If additional sampling of any of these parcels come out clean, then the City will resample these areas to verify the results. If the second set of samples come out clean, then these parcels will be removed from the list of parcels requiring remediation.

The parcel-by-parcel sampling will be conducted similar to Tier 2 sampling. One central boring will be conducted to the water table and checked for visual ash and XRF lead. Four additional corner samples will be conducted to 2 feet and checked for visual ash and XRF lead. Any discreet sample where XRF lead measurements are in the range of 200 – 400 mg/Kg will be analyzed in the laboratory for lead. A five point surface composite sample (0 – 6 inches) will be collected. Laboratory analyses will include lead for all samples where XRF lead measurements are in the range of 200 – 400 mg/Kg. In addition, a percentage of the composite soil samples will be submitted to the laboratory for analysis of other COPCs including TAL metals (20%), PAHs (10%) and dioxins (10%). The dioxin laboratory samples will be analyzed using Method 8290. The TAL analysis will be run by Trace Inductively Coupled Plasma (TICP) by Method No. 6010B. Positive detections of arsenic above 1.0 mg/Kg and thallium above 1.0 mg/Kg will be confirmed by Graphite Furnace Atomic Adsorption Method No. 7000 Series.

The attached figure shows the proposed sampling locations.

Access Agreements

Additional effort will be required to obtain access agreements to sample the additional parcels. As done in the previous RI sampling, the City will put forth extensive efforts in obtaining access agreements for sampling of each parcel, including mailers, door-to-door contacts and announcement at citizen meetings . Where these efforts are unsuccessful in obtaining access agreements, the City will request assistance from EPA. It is our understanding that EPA has the authority under CERCLA to access these sites for sampling.

Laboratory

The City proposes to use Severn-Trent Laboratories(STL), Savannah Georgia (Savannah Labs) to perform the analyses. STL has already been approved by EPA during the previous RI sampling effort.

Contractor

The City's contractor for this work is CH2M HILL, Jacksonville, Florida. Other Team Contractors include Aerostar Environmental Services, Jacksonville, Florida, and England, Thims & Miller, Jacksonville, Florida. Key roles and responsibilities are summarized below:

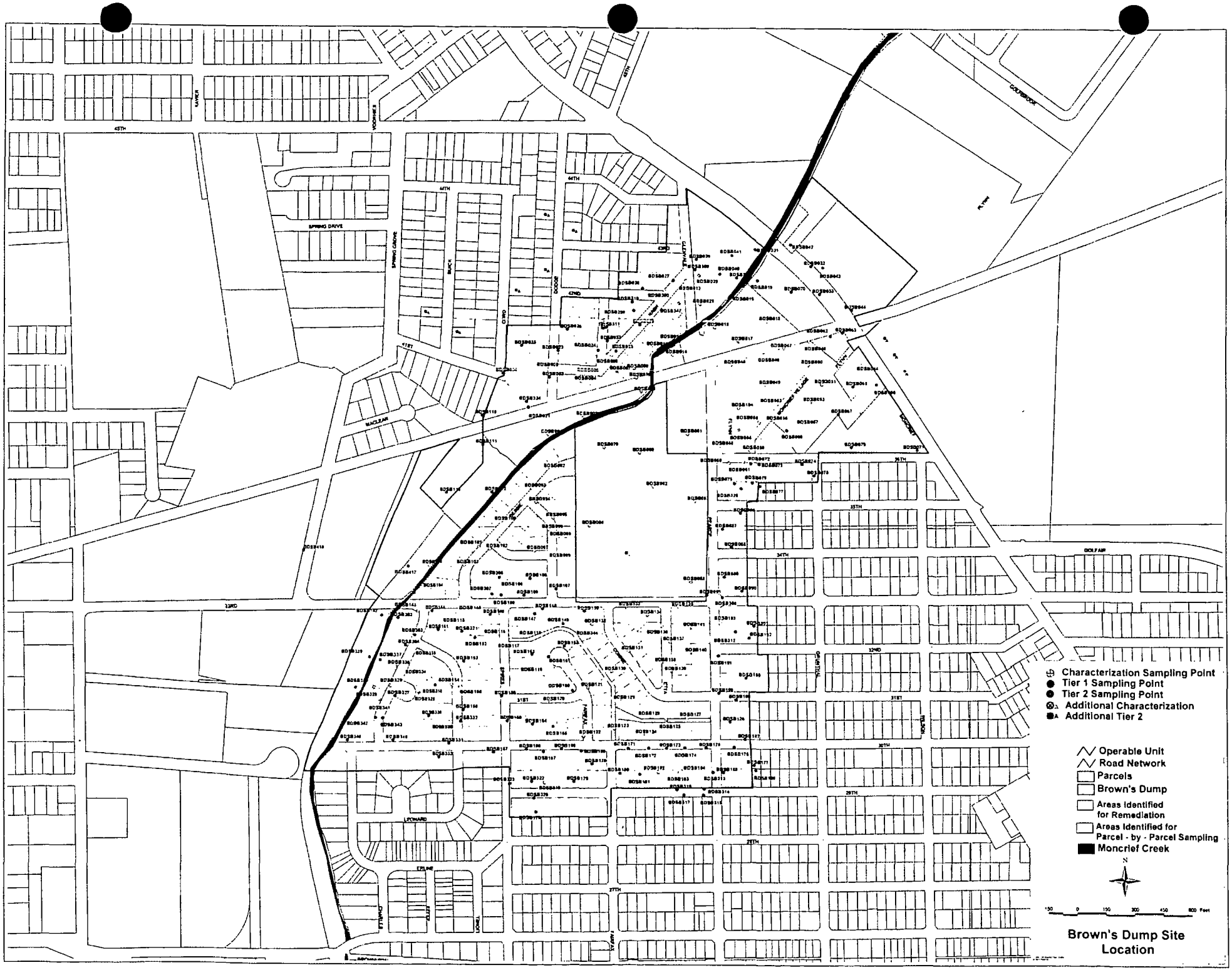
Norm Hatch / CH2M HILL	Project Manager
Tony Wagner/CH2M HILL	Senior Hydrogeologist
Phil Smith/CH2M HILL	Senior Environmental Engineer
John Belyea/CH2M HILL	Field Team Leader
Leon Carrero/Aerostar	Aerostar Lead
Alexa Graf/ETM	ETM Lead

Schedule

The City will begin mobilization within two weeks of EPA's approval of the Work Plan. The deliverables and milestones for the additional RI sampling are summarized below:

Milestone/Deliverable	Weeks from EPA's Approval
Begin Mobilization	2
Begin Sampling	4
Sampling Complete	19
Laboratory Analyses Complete	23
Data Validation Complete	27
Draft RI Report Complete	33

The City will make every effort to meet or beat the above schedule.


Characterization Sampling Point
Tier 1 Sampling Point
Tier 2 Sampling Point
Additional Characterization
Additional Tier 2
Operable Unit
Road Network
Parcels
Brown's Dump
Areas Identified for Remediation
Areas Identified for Parcel - by - Parcel Sampling
Moncrief Creek
N
150 0 150 300 450 600 Feet
Brown's Dump Site Location

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